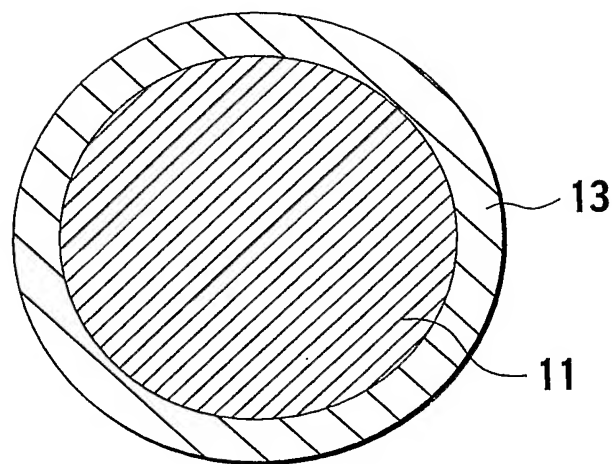
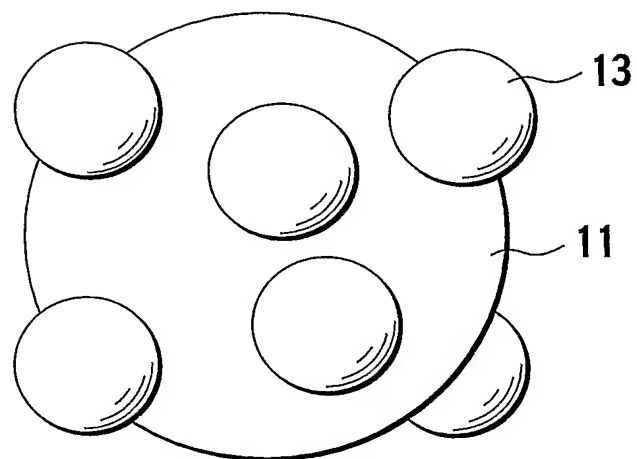


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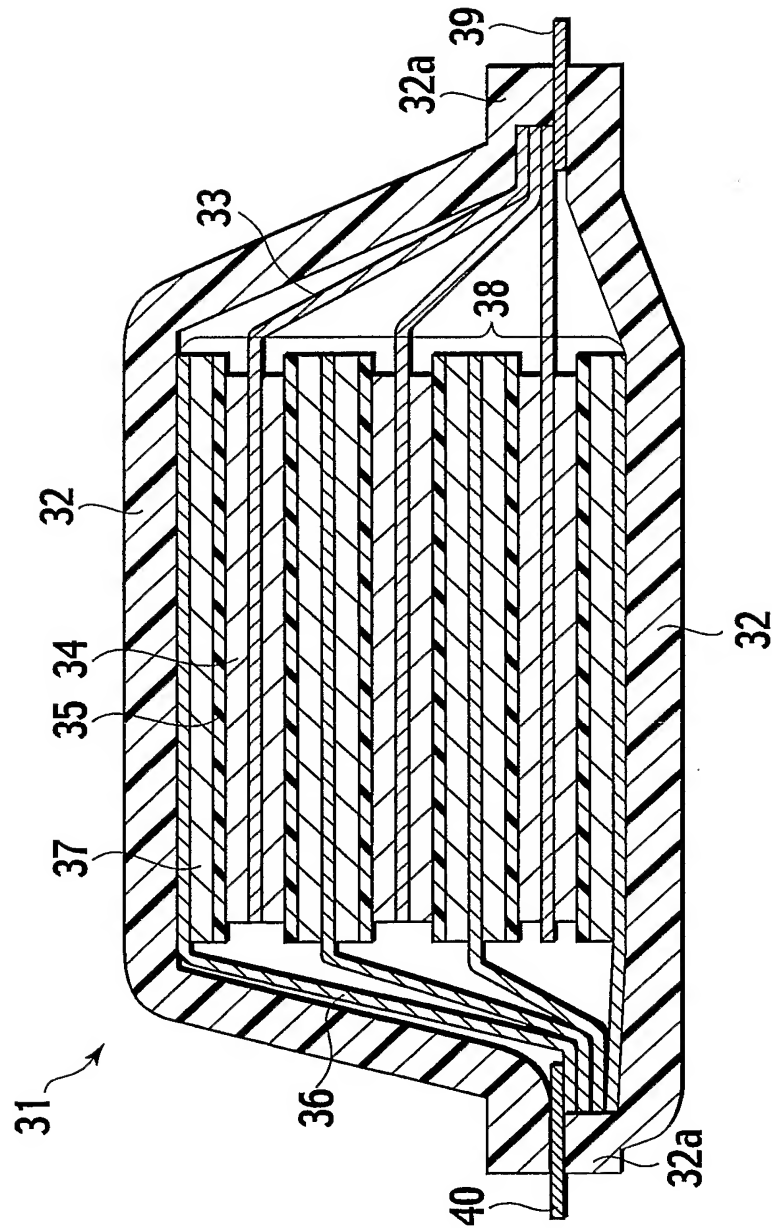
**FIG.1**



**FIG.2**

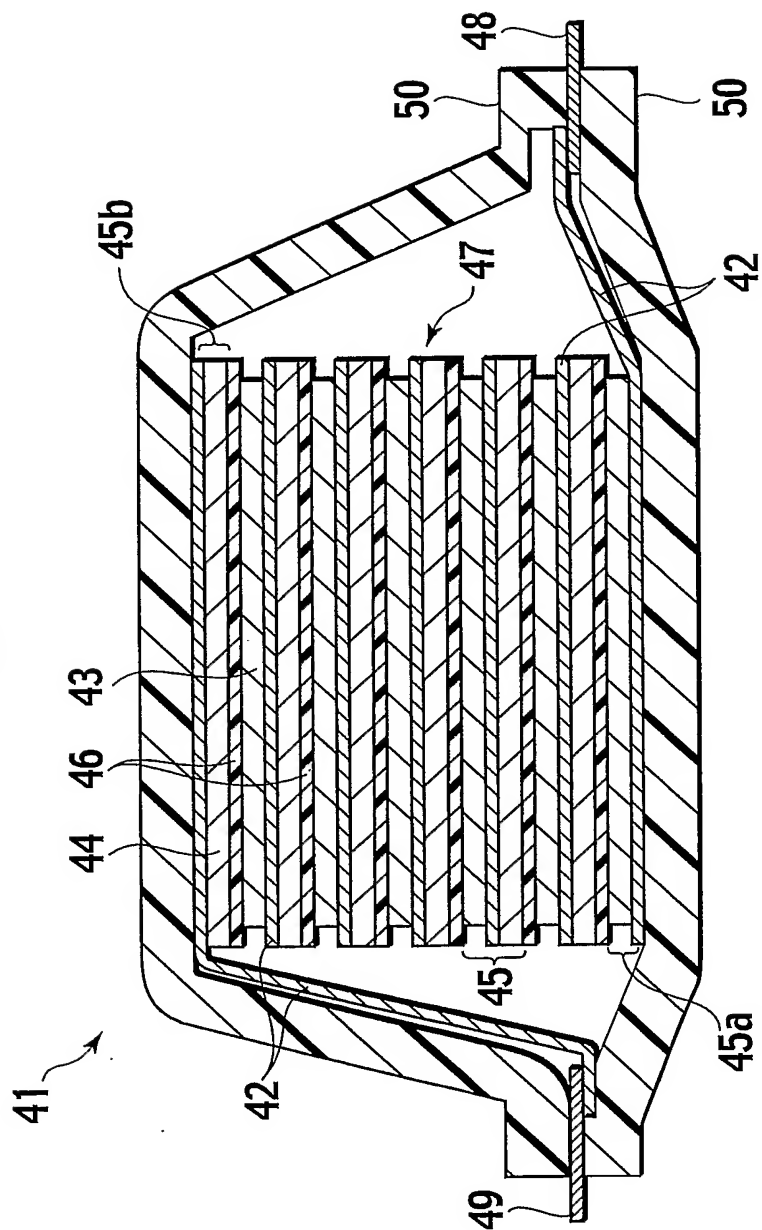


**FIG. 3**



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FIG.4



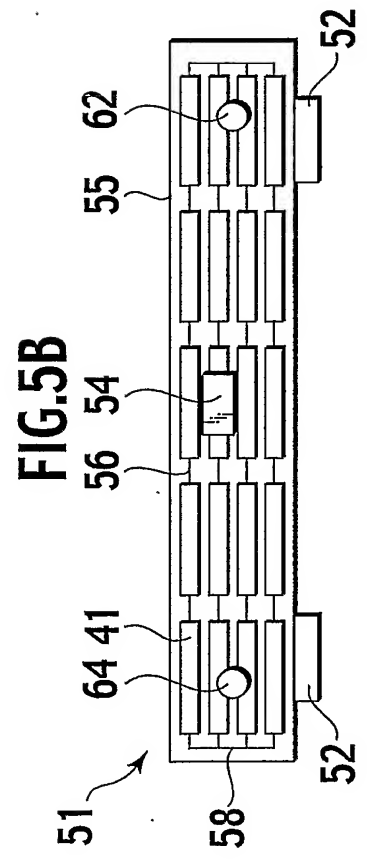
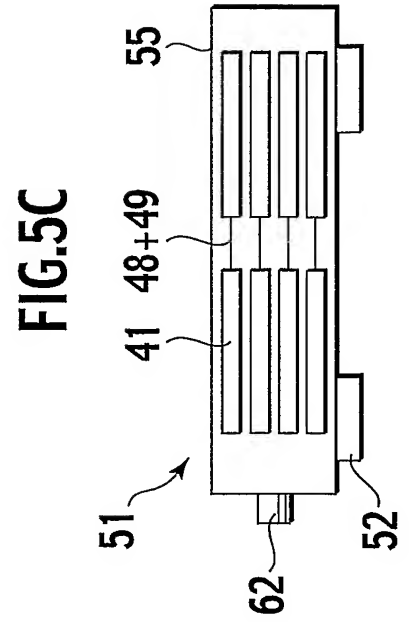
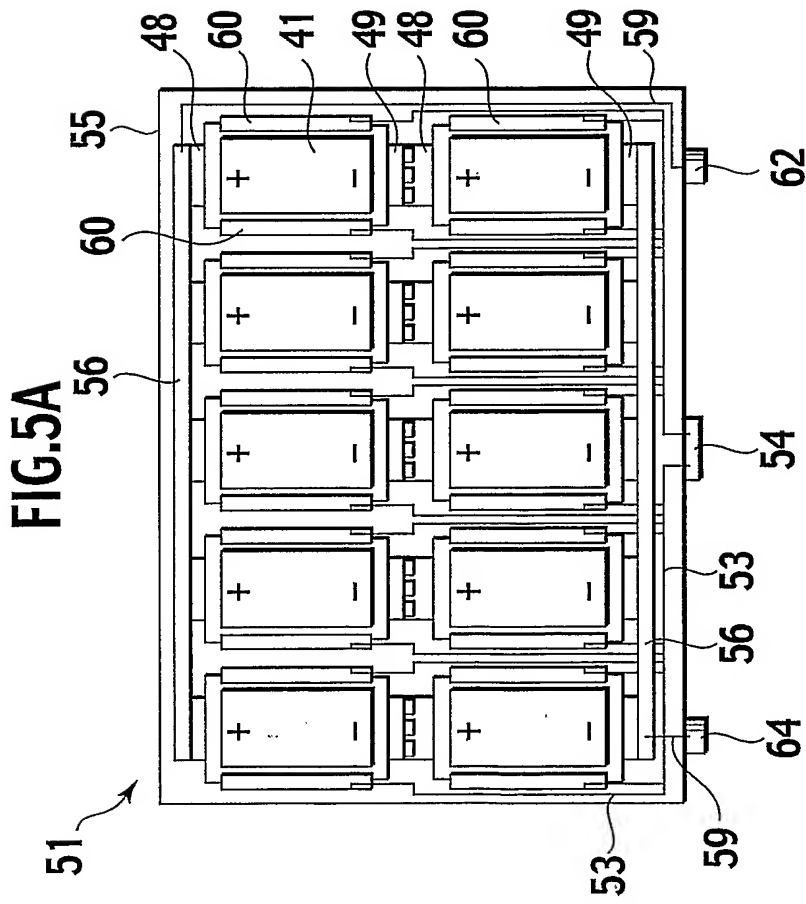


FIG.6A

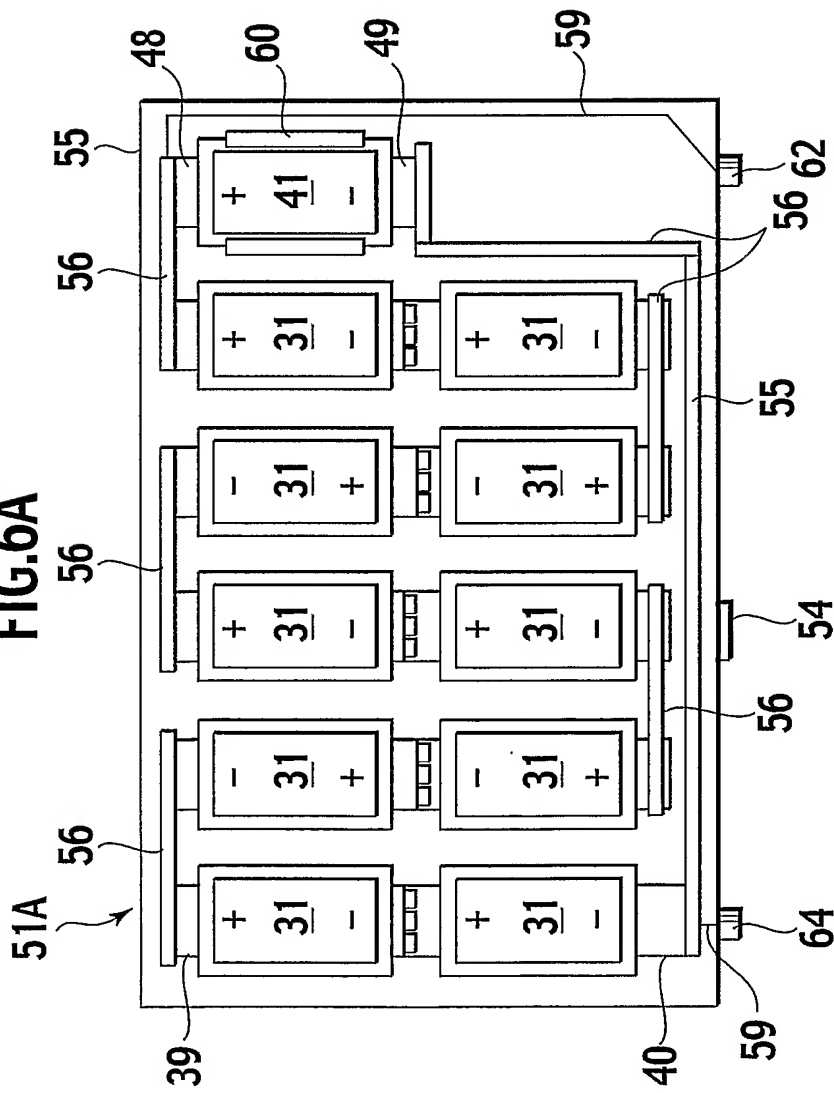


FIG.6B

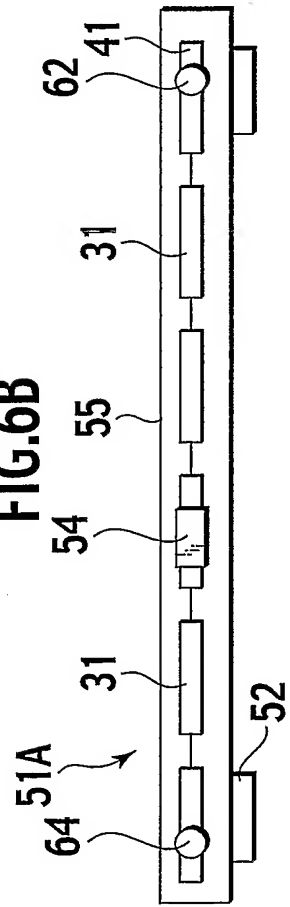
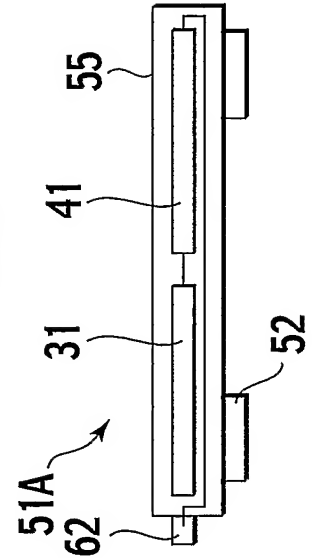
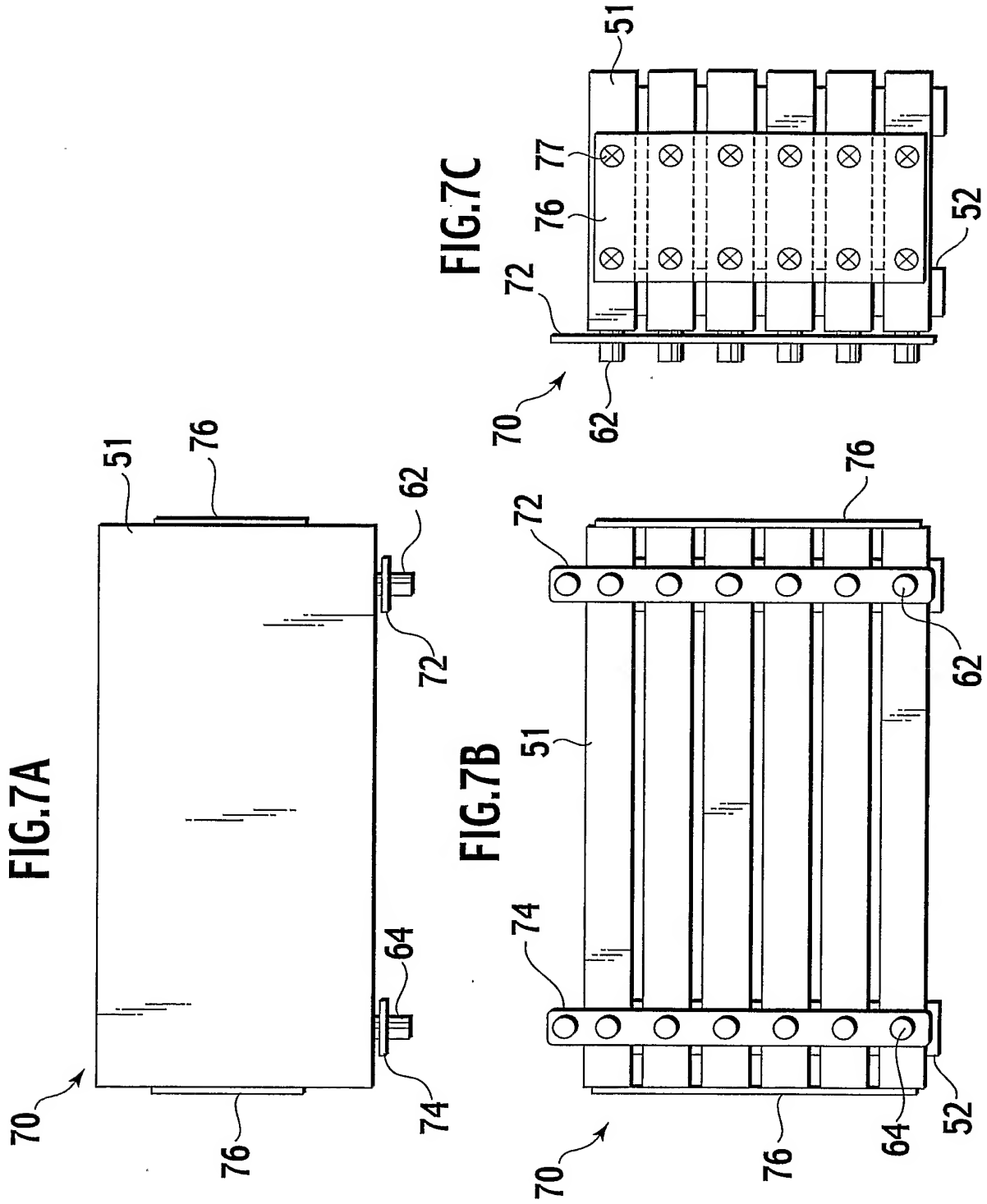


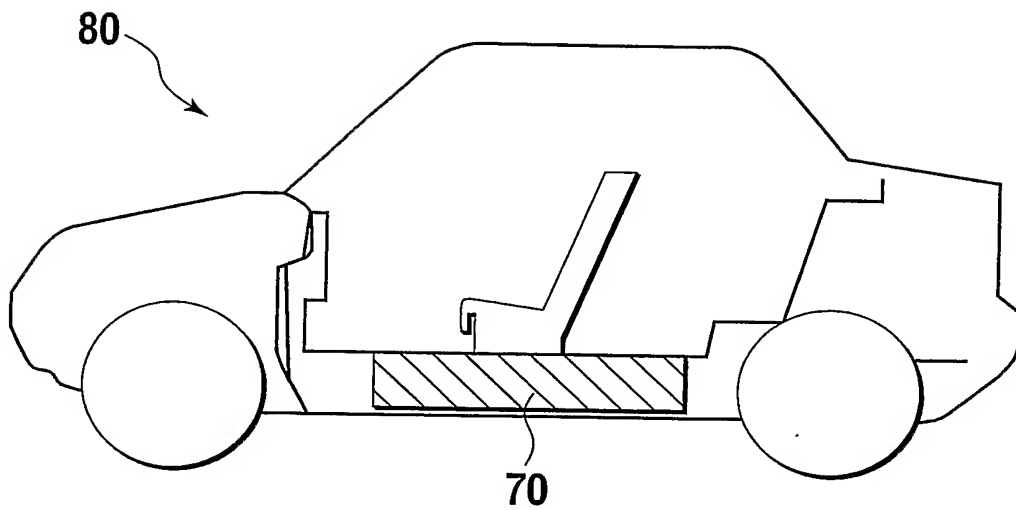
FIG.6C



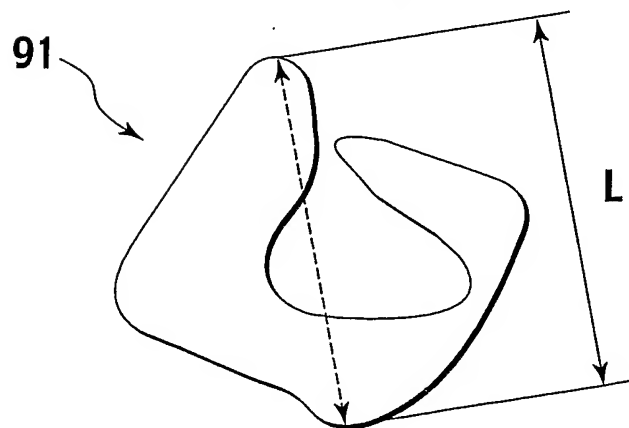


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**FIG.8**



**FIG.9**



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FIG.10

	TYPE OF LINI OXIDE COMPOSITE USED IN POSITIVE ELECTRODE ACTIVE MATERIAL	Li COMPOUND DEPOSITED	THICKNESS OF Li COMPOUND DEPOSITED(nm)	SWELL RATE OF CELL (%)	CELL'S INTERNAL RESISTANCE INCREASE RATE (%)
EXAMPLE 1	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM PHOSPHATE	500	3	1.5
EXAMPLE 2	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	Li <sub>2.9</sub> PO <sub>3.3</sub> N <sub>0.36</sub>	500	2	1.6
EXAMPLE 3	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	Li <sub>2</sub> O-B <sub>2</sub> O <sub>3</sub>	500	2	1.4
EXAMPLE 4	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	Li <sub>2</sub> O-B <sub>2</sub> O <sub>3</sub> -LiI	500	3	1.5
EXAMPLE 5	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	Li <sub>2</sub> S-SiS <sub>2</sub>	500	3	1.7
EXAMPLE 6	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	Li <sub>2</sub> S-SiS <sub>2</sub> -Li <sub>3</sub> PO <sub>4</sub>	500	3	1.6
EXAMPLE 7	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM COBALTATE	500	2	1.4
EXAMPLE 8	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM MANGANATE	500	2	1.4
EXAMPLE 9	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LiFePO <sub>4</sub>	500	3	1.7
EXAMPLE 10	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM HYDROXIDE	500	3	1.5
EXAMPLE 11	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM FLUORIDE	500	3	1.6
EXAMPLE 12	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM ACETATE	500	2	2.3
EXAMPLE 13	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM ACETYLIDE-ETHYLENEDIAMINE	500	3	2.2
EXAMPLE 14	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM BENZOATE	500	1	2.4
EXAMPLE 15	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM BROMIDE	500	2	2.5
EXAMPLE 16	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM CARBONATE	500	2	2.3
EXAMPLE 17	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM NITRATE	500	1	2.2
EXAMPLE 18	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM OXALATE	500	3	2.5
EXAMPLE 19	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM PYRUVATE	500	1	2.6
EXAMPLE 20	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM STEARATE	500	1	2.3
EXAMPLE 21	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM TARTRATE	500	1	2.3
EXAMPLE 85	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM SULFATE	500	1	2.1
COMPARATIVE EXAMPLE 1	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	NONE	-	15	2.7



FIG.11

	TYPE OF LNi OXIDE COMPOSITE USED IN POSITIVE ELECTRODE ACTIVE MATERIAL	LI COMPOUND DEPOSITED	THICKNESS OF LI COMPOUND DEPOSITED(nm)	SWELL RATE OF CELL (%)	CELL'S INTERNAL RESISTANCE INCREASE RATE (%)
EXAMPLE 22	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM PHOSPHATE	500	2	2.0
EXAMPLE 23	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	Li <sub>2.9</sub> P <sub>0.3</sub> N <sub>0.36</sub>	500	2	1.8
EXAMPLE 24	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	Li <sub>2</sub> O-B <sub>2</sub> O <sub>3</sub>	500	2	1.9
EXAMPLE 25	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	Li <sub>2</sub> O-B <sub>2</sub> O <sub>3</sub> -LiI	500	3	2.1
EXAMPLE 26	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	Li <sub>2</sub> S-SiS <sub>2</sub>	500	1	1.7
EXAMPLE 27	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	Li <sub>2</sub> S-SiS <sub>2</sub> -Li <sub>3</sub> PO <sub>4</sub>	500	1	1.6
EXAMPLE 28	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM COBALTATE	500	1	1.9
EXAMPLE 29	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM MANGANATE	500	2	2.0
EXAMPLE 30	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LiFePO <sub>4</sub>	500	3	2.1
EXAMPLE 31	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM HYDROXIDE	500	1	1.8
EXAMPLE 32	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM FLUORIDE	500	1	1.9
EXAMPLE 33	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM ACETATE	500	2	3.0
EXAMPLE 34	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM ACETYLIDE-ETHYLENEDIAMINE	500	3	2.9
EXAMPLE 35	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM BENZOATE	500	1	3.1
EXAMPLE 36	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM BROMIDE	500	1	3.1
EXAMPLE 37	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM CARBONATE	500	2	3.0
EXAMPLE 38	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM NITRATE	500	2	3.2
EXAMPLE 39	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM OXALATE	500	3	3.1
EXAMPLE 40	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM PYRUVATE	500	3	2.9
EXAMPLE 41	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM STEARATE	500	3	2.5
EXAMPLE 42	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM TARTRATE	500	3	2.9
EXAMPLE 86	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM SULFATE	500	2	2.3
COMPARATIVE EXAMPLE 2	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	NONE	-	10	3.5

FIG.12

	TYPE OF LNi OXIDE COMPOSITE USED IN POSITIVE ELECTRODE ACTIVE MATERIAL	LI COMPOUND DEPOSITED	THICKNESS OF LI COMPOUND DEPOSITED(nm)	SWELL RATE OF CELL (%)	CELL'S INTERNAL RESISTANCE INCREASE RATE (%)
EXAMPLE 43	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM PHOSPHATE	1	5	1.3
EXAMPLE 44	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	Li <sub>2.9</sub> PO <sub>3.3</sub> Nb <sub>0.36</sub>	1	6	1.4
EXAMPLE 45	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	Li <sub>2</sub> O-B <sub>2</sub> O <sub>3</sub>	1	5	1.3
EXAMPLE 46	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	Li <sub>2</sub> O-B <sub>2</sub> O <sub>3</sub> -LiI	1	6	1.5
EXAMPLE 47	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	Li <sub>2</sub> S-SiS <sub>2</sub>	1	5	1.6
EXAMPLE 48	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	Li <sub>2</sub> S-SiS <sub>2</sub> -Li <sub>3</sub> PO <sub>4</sub>	1	5	1.4
EXAMPLE 49	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM COBALTATE	1	5	1.5
EXAMPLE 50	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM MANGANATE	1	6	1.3
EXAMPLE 51	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LiFePO <sub>4</sub>	1	4	1.4
EXAMPLE 52	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM HYDROXIDE	1	4	1.2
EXAMPLE 53	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM FLUORIDE	1	5	1.6
EXAMPLE 54	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM ACETATE	1	4	1.4
EXAMPLE 55	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM ACETYLIDE-ETHYLENEDIAMINE	1	4	2.3
EXAMPLE 56	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM BENZOATE	1	5	2.4
EXAMPLE 57	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM BROMIDE	1	6	2.2
EXAMPLE 58	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM CARBONATE	1	4	2.6
EXAMPLE 59	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM NITRATE	1	4	2.5
EXAMPLE 60	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM OXALATE	1	4	2.2
EXAMPLE 61	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM PYRUVATE	1	6	2.3
EXAMPLE 62	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM STEARATE	1	6	2.4
EXAMPLE 63	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM TARTRATE	1	5	2.3
EXAMPLE 87	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	LITHIUM SULFATE	1	5	2.1
COMPARATIVE EXAMPLE 3	LiNi <sub>0.83</sub> Co <sub>0.15</sub> Al <sub>0.02</sub> O <sub>2</sub>	NONE	-	17	2.7

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FIG.13

	TYPE OF LITHIUM OXIDE COMPOSITE USED IN POSITIVE ELECTRODE ACTIVE MATERIAL	LI COMPOUND DEPOSITED	THICKNESS OF LI COMPOUND DEPOSITED(nm)	SWELL RATE OF CELL (%)	CELL'S INTERNAL RESISTANCE INCREASE RATE (%)
EXAMPLE 64	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM PHOSPHATE	1	6	1.4
EXAMPLE 65	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	Li <sub>2.9</sub> PO <sub>3.3</sub> Nb <sub>0.36</sub>	1	4	1.2
EXAMPLE 66	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	Li <sub>2</sub> O-B <sub>2</sub> O <sub>3</sub>	1	4	1.3
EXAMPLE 67	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	Li <sub>2</sub> O-B <sub>2</sub> O <sub>3</sub> -LiI	1	4	1.4
EXAMPLE 68	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	Li <sub>2</sub> S-SiS <sub>2</sub>	1	6	1.3
EXAMPLE 69	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	Li <sub>2</sub> S-SiS <sub>2</sub> -Li <sub>3</sub> PO <sub>4</sub>	1	6	1.2
EXAMPLE 70	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM COBALTATE	1	5	1.3
EXAMPLE 71	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM MANGANATE	1	4	1.4
EXAMPLE 72	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LiFePO <sub>4</sub>	1	4	1.2
EXAMPLE 73	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM HYDROXIDE	1	4	1.5
EXAMPLE 74	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM FLUORIDE	1	6	1.2
EXAMPLE 75	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM ACETATE	1	4	2.3
EXAMPLE 76	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM ACETYLIDE-ETHYLENEDIAMINE	1	5	2.4
EXAMPLE 77	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM BENZOATE	1	4	2.3
EXAMPLE 78	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM BROMIDE	1	6	2.2
EXAMPLE 79	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM CARBONATE	1	5	2.5
EXAMPLE 80	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM NITRATE	1	6	2.3
EXAMPLE 81	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM OXALATE	1	5	2.5
EXAMPLE 82	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM PYRUVATE	1	5	2.3
EXAMPLE 83	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM STEARATE	1	5	2.5
EXAMPLE 84	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM TARTRATE	1	6	2.3
EXAMPLE 88	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	LITHIUM SULFATE	1	6	2.2
COMPARATIVE EXAMPLE 4	LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub>	NONE	-	10	3.5